"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030002-1

GLEBOVICH, G.V.

Passband of magnetostrictive delay lines. Radiotekhnika 14 no.2: 74-75 F '59. (MIRA 12:1)
(Magnetostriction)

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82961
S/142/60/003/002/001/022
E192/E382

9,3260

AUTHORS: Glebovich, G.V. and Morgulin, L.A.

TITLE: Millimicrosecond Pulse Technique (Review)

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy Radiotekhnika, 1960, Vol 3, No. 2, pp 137 - 152

TEXT: The survey deals with the methods of generation, amplification and display of the rectangular pulses of millimicrosecond duration. First, the generation by means of feedback circuits is considered. It is pointed out that successful generators can be built with secondary-emission tubes, the circuits being in the form shown in Fig. 1. By means of these circuits it is possible to obtain the rate of rise of the order of 10^9 V/sec. On the other hand by means of a multivibrator (as shown in Fig. 2) furnished with a secondary-emission tube, it is possible to obtain pulses having a duration of 2 - 5 mμsec with repetition rates of 1 Mc/s. The millimicrosecond pulses can also be generated by means of blocking oscillators, provided their transformers are properly designed. Another method of pulse generation is based on the circuits provided with a delayed feedback; two circuits of this type are shown in Fig. 3. By means

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Millimicrosecond Pulse Technique (Review)

of such devices it is possible to generate pulses having a duration of 7 mμsec and repetition frequencies up to 20 Mc/s. A different type of pulse generator is based on pulse-forming lines. Such devices are illustrated in Fig. 4. The switches employed in these generators can be either special relays or fast thyratrons. These circuits permit the generation of pulses having a duration of a few milli-microseconds and comparatively high amplitudes. One of the dis-advantages of these line-type generators is that they have to be provided with a matched load. This difficulty was overcome in the circuits illustrated in Fig. 5. By means of these devices it is possible to obtain the same performance as with the previous line-type generators. The pulses can also be produced by means of the circuits with non-linear inductances and capacitances, such as shown in Fig.6. These devices can deliver very high amplitudes (up to 10 kV) and pulse durations down to 5 mμsec. In order to obtain pulses shorter than 1 mμsec at repetition frequencies of the order of hundreds of Mc/s, special electronic devices are employed. The main device for the amplification of millimicrosecond pulses is the distributed amplifier

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Millimicrosecond Pulse Technique (Review)

(see Fig. 8). Some amplifiers have been constructed which have an amplification of 20 db and a rise time of 0.7 mμsec. One of important devices in millimicrosecond pulse technique is the pulse transformer. One of the very successful transformers is based on several segments of coaxial cable. The pulses can be observed by means of special high-frequency oscillographs. By means of some modern oscillographs it is possible to obtain time bases whose sweep corresponds to 3-5 mμsec.
There are 8 figures and 41 references: 24 English, 3 German, 1 Czech and 13 Soviet.

ASSOCIATION: Gor'kovskiy politekhnicheskiy institut im. A.A. Zhdanova (Gor'kiy Polytechnical Institut im. A.A. Zhdanov)

SUBMITTED: June 23, 1959

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GLEBOVICH, G.V., dots.

[Generation of sinusoidal and relaxation oscillations in transistor circuits; manual on a course in "Principles of radio engineering"] Generirovanie sinusoidal'nykh i relaksatsionnykh kolebanii v skhemakh na poluprovodnikovykh triodakh; uchebnoe posobie po kursu "Osnovy radiotekhniki." Gor'kii, Gor'kovskii politekhn. in-t, 1961. 48 p. (MIRA 18:5)

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"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030002-1

24858 S/106/61/000/005/006/006
A055/A133

6.9411

AUTHOR: Glebovich, G. V.

TITLE: Transient characteristics of coaxial cables, taking into account the losses in the conductors and in the dielectric.

PERIODICAL: Elektrosvyaz', no. 5, 1961, 73 - 75

TEXT: Pulses of extremely short duration (the rise time of their fronts is of the order of 10^{-9} - 10^{-10} sec) begin to be widely used in pulse technique. When such pulses pass through small sections of a coaxial cable, they are perceptibly distorted, owing to losses in the conductors and in the dielectric of the cable. Transient processes in a coaxial cable were already studied by L. A. Zhekulin [Ref. 2: Neustanovivshiyesya protsessy v koaksial'nom kabele (Transient Processes in Coaxial Cables.)"Izvestiya Akademii Nauk" of the USSR. Department of Technical Sciences. 1946, no. 9], but only losses in conductors were taken into consideration by him. Measurements have shown, however, that dielectric losses in coaxial cables with polyethylene filling, become equal to losses in the conductors at frequencies of $1.5 \cdot 10^9$ - $3 \cdot 10^9$ cycles, and even exceed them at still higher frequencies. Therefore, in his analysis of transient characteristics of coaxial cables the author takes into account both these losses. The transmission

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factor of a coaxial cable can be expressed as:

$$\dot{K} = e^{-\dot{\gamma} t}, \qquad (1)$$

where the propagation factor $\dot{\gamma}$, in the HF range and when only losses in conductors are taken into account, it is

$$\dot{\gamma} = i\omega \sqrt{L_o C_o} + b_1 \sqrt{i\omega}, \qquad (2)$$

In this formula, $b_1 = \frac{1}{4\pi} \sqrt{\frac{C_o}{L_o}} \sqrt{\mu \rho} \left(\frac{1}{r_1} + \frac{1}{r_2}\right)$. (2')

where L_o and C_o are the inductance and the capacitance of the cable per unit of length, μ is the permeability of the inner and outer conductors, ρ is their specific resistance, r_1 and r_2 are the radii of the inner (solid) and outer (hollow) conductors. The transient characteristics of coaxial cables are determined, in this case, by the relation.

$$h(t_1) = 1 - \Phi\left(\frac{b_1 l}{2\sqrt{t_1}}\right), \qquad (3)$$

where $\Phi\left(\frac{b_1 l}{2\sqrt{t_1}}\right)$ is the Kramp (Cramp?) function, $t_1 = t - \sqrt{L_o C_o}\, l$, and l the length of the cable. In order to take also into account the dielectric losses,

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the author begins by examining the general expression for the propagation factor:

$$\dot{\gamma} = \sqrt{\dot{Z}_0 \dot{Y}_0} = \sqrt{(R_0 + i\omega L_0)(G_0 + i\omega C_0)} = \beta + i\alpha, \quad (4)$$

where $\beta = \frac{R_0}{2}\sqrt{\frac{C_0}{L_0}} + \frac{G_0}{2}\sqrt{\frac{L_0}{C_0}} = \beta_R + \beta_G$, (5)

and $\alpha = \sqrt{\omega^2 L_0 C_0 + (\frac{R_0}{2}\sqrt{\frac{C_0}{L_0}} - \frac{G_0}{2} \times \sqrt{\frac{L_0}{C_0}})^2}$. (5')

Resistance R_0 and conductance G_0 are determined (at high frequencies) by:

$$R_0 = \frac{1}{2\pi}\sqrt{\frac{\omega\mu\rho}{2}}(\frac{1}{r_1} + \frac{1}{r_2}), \quad (6)$$

$$G_0 = \omega C_0 \operatorname{tg}\delta, \quad (6')$$

where δ is the cable-dielectric loss-angle. The dielectric losses depend on the frequency, but the analytical expression for this dependence is unknown. For coaxial cables with compact polyethylene filling, experimental data were published, however, concerning the attenuation due to both kinds of losses within a large frequency range [Ref. 3: I. Ye. Yefimov, T. M. Orlovich. Raschet osnovnykh para-

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metrov radiochastotnykh kabeley (Calculation of the Basic Parameters of R. F. Cables), Radiotekhnika, 1957, no. 8). A graph is also known, giving the frequency dependence of the tangent of the loss angle of the cable polyethylene [Ref. 5: N. I. Belorusov, I. I. Grodnev. Radiochastotnyye kabeli (Radio Frequency Cables,) Gosenergoizdat., 1959] [Ref. 6: R. M. Lakernik, D. L. Sharle. Polietilen i yego primeneniye v kabel'noy tekhnika (Polyethylene and its Application in Cable Engineering), Gosenergoizdat., 1958]. On the basis of these experimental data, the author found an approximate empirical formula for the frequency dependence of the tangent of the polyethylene loss-angle in the case of high-frequencies (from several hundreds of megacycles upward):

$$\operatorname{tg}\delta = \frac{a_1 \sqrt{\omega}}{1 + m\omega}, \qquad (7)$$

where $a_1 = 1.2 \cdot 10^{-8}$ sec $^{1/2}$/ rad $^{1/2}$, $m = 2 \cdot 10^{-11}$ sec/rad. At high frequencies the cable-conductance is given, according to (6') and (7), by

$$G_0 = \frac{a_1 \omega^{\frac{3}{2}} C_0}{1 + m\omega} \qquad (8)$$

Calculating on the basis of (8), (7), (6') and (5) the frequency dependence of the

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Transient characteristics of coaxial cables,...

losses in ployethylene cables, the author obtained results which agree satisfactorily with the experimental data. Using formulae (4), (5), (6) and (8), he found the following expression for the propagation factor:

$$\dot{\gamma} = b\sqrt{\omega} + \frac{a\omega^{3/2}}{1 + m\omega} + i\sqrt{\omega^2 L_0 C_0 + \left(b\sqrt{\omega} - \frac{a\omega^{3/2}}{1 + m\omega}\right)^2} \qquad (9)$$

where $b = \frac{1}{\sqrt{2}}$, $a = \frac{1}{2}\sqrt{L_0 C_0}$, the value of b_1 being given by (2'). $\dot{\gamma}$ being known, the transmission factor of the coaxial cable is given by the expression:

$$\dot{K} = \frac{1}{\exp\left\{l\left[b\sqrt{\omega} + \frac{a\omega^{3/2}}{1 + m\omega} + i\sqrt{\omega^2 L_0 C_0 + \left(b\sqrt{\omega} - \frac{a\omega^{3/2}}{1 + m\omega}\right)^2}\right]\right\}} \qquad (10)$$

The transient characteristics of coaxial cables - their theoretical determination proving exceedingly difficult when dielectric losses are taken into account - were obtained by a graphicoanalytical method. The author first calculated and plotted the dependence for the real (non-imaginary) part of the transmission factor: $P(\omega) = |\dot{K}(\omega)| \cos\varphi(\omega)$ where $|K(\omega)|$ and $\varphi(\omega)$ were calculated with the aid of formula (10). This dependence, represented by a graph, was approximat-

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ed by triangles, and the transient characteristic was finally obtained by using some formulae and tables given by V.V. Mlodovnikov, Yu. I. Topchiev and G. V. Kratikov [Ref. 7: Chastotnyy metod postroyeniya perekhodnykh protsessov s primeneniem tablits i nomogramm (Frequency Method for the Plotting of Transient Processes with Application of tables and Nomograms,) Oborongiz, 1956]. The examination of the transient characteristics obtained by him led the author to the following conclusions: The set-up time appears as considerably greater on the graphs if dielectric losses are taken into consideration. The transient characteristics of cables contain a rapid-rise section and a slow-rise section; the duration of the first section should be used to estimate the setup-time, since it is this duration that determines the possibility of transmitting a pulse of the order of 10^{-9} - 10^{-10} second without a perceptible distortion of its front. There are 3 figures and 7 Soviet-bloc references

SUBMITTED: December 3, 1960

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3214?
S/120/61/000/006/015/041
E140/E435

9,4150 (1138, 1140)

AUTHORS: Bartenev, L.S., Glebovich, G.V., Ptitsin, K.N.

TITLE: Ultra-high-speed pulse oscillograph

PERIODICAL: Pribory i tekhnika eksperimenta, no.6, 1961, 80-83

TEXT: An ultra-high-speed oscillograph is described, reaching time base velocities of 2×10^{10} cm/sec and time instability $\sim 1.5 \times 10^{-11}$ sec, permitting registration of pulse processes with durations of 10^{-10} sec. The basic features of the system are: the use of shock-waves generated in a ferrite transmission line, as the time base, and a specially designed CRT. The latter employs a slotted coaxial line for the vertical deflection and a special diaphragm (Fig.3). The diaphragm cuts off the beam in the resting position, eliminates an initial nonlinear portion of the time base, and again cuts off the beam at the end of the time base, permitting less stringent requirements on the beam brightening pulse. The use of complete supply voltage stabilization and other design measures has permitted keeping the time base instability within the limits described. There are 4 figures and 2 Soviet-bloc references.

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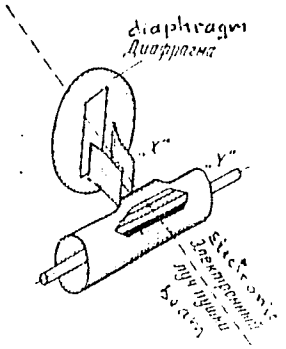
3047
S/120/61/000/006/015/041
E140/E435

Ultra-high-speed pulse oscillograph

ASSOCIATION: Nauchno-issledovatel'skiy radiofizicheskiy institut GGU (Scientific Research Radiophysics Institute GGU)

SUBMITTED: April 17, 1961

Fig.3.



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S/109/63/008/002/022/028
D266/D308

AUTHOR: Glebovich, G.V.

TITLE: Transient characteristics of strip lines

PERIODICAL: Radiotekhnika i elektronika, v. 8, no. 2, 1963, 337-341

TEXT: The paper is concerned with the propagation of very short pulses (less than a nanosecond) on three-conductor strip lines. Assuming a TEM wave the transmission characteristics are obtained in the following form

$$\overline{K} = e^{-\overline{\gamma}\ell} = \left\{ \exp \ell \left[B_1 \sqrt{\omega} + A_1 \omega \operatorname{tg}\delta + j\left(\frac{\omega}{v} + B_1\sqrt{\omega}\right)\right]\right\}^{-1}. \qquad (4)$$

where γ - propagation coefficient, ℓ - length of the line, ω - angular frequency, δ - loss angle of the dielectric, v - velocity. Neglecting losses in the dielectric the output waveform is

$$u_o(t) = S\frac{B^2\ell^2}{2}\left\{\left(1 + \frac{2t_1}{B^2\ell^2}\right)\left[1 - \Phi\left(\frac{B\ell}{2\sqrt{t_1}}\right)\right] - \frac{2}{B\ell}\sqrt{\frac{t_1}{\pi}}\, e^{-\frac{B^2\ell^2}{4t_1}}\right\}. \qquad (8)$$

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Transient characteristics ...

where $S = u_i/t$, u_i - input waveform, $B = B_1\sqrt{2}$, $t_1 = t - l/v$, Φ - Kramp function. With the aid of (8) it is possible to calculate the relative curvature of the input and output signals. In order to increase bandwidth it is suggested that the center conductor should be made of dielectrics (polyethylene or teflon) covered by thin layers of metal on both sides. If this covering is thin in comparison with the skin depth the frequency dependence of the attenuation can be neglected though for larger amounts of transmitted power this solution is not suitable. Taking into account the dielectric losses as well as the pass band of the strip line is calculated from (4) by numerical methods. Limiting frequency is defined where the transmission coefficient is 2 db less than for lower frequencies. Larger distance between the conductors and shorter length of line result in an increased pass band. For shorter lengths the proportion of dielectric losses increases. The author notes in conclusion that for the transmission of pulses of 10^{-9} - 10^{-10} seconds the distance between the plates must be as much as 5 - 10 mm and the line should not be longer than 5 - 10 m. There are 5 figures.

SUBMITTED: May 21, 1962

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"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030002-1

GLEBOVICH, G.V.

Distortion of nanosecond impulses propagating through a coaxial cable. Radiotekhnika 18 no.10:54-62 O '63. (MIRA 16:12)

1. Deystvitel'nyy chlen Nauchno-tekhnicheskogo obshchestva radiotekhniki i elektrosvyazi im. A.S.Popova.

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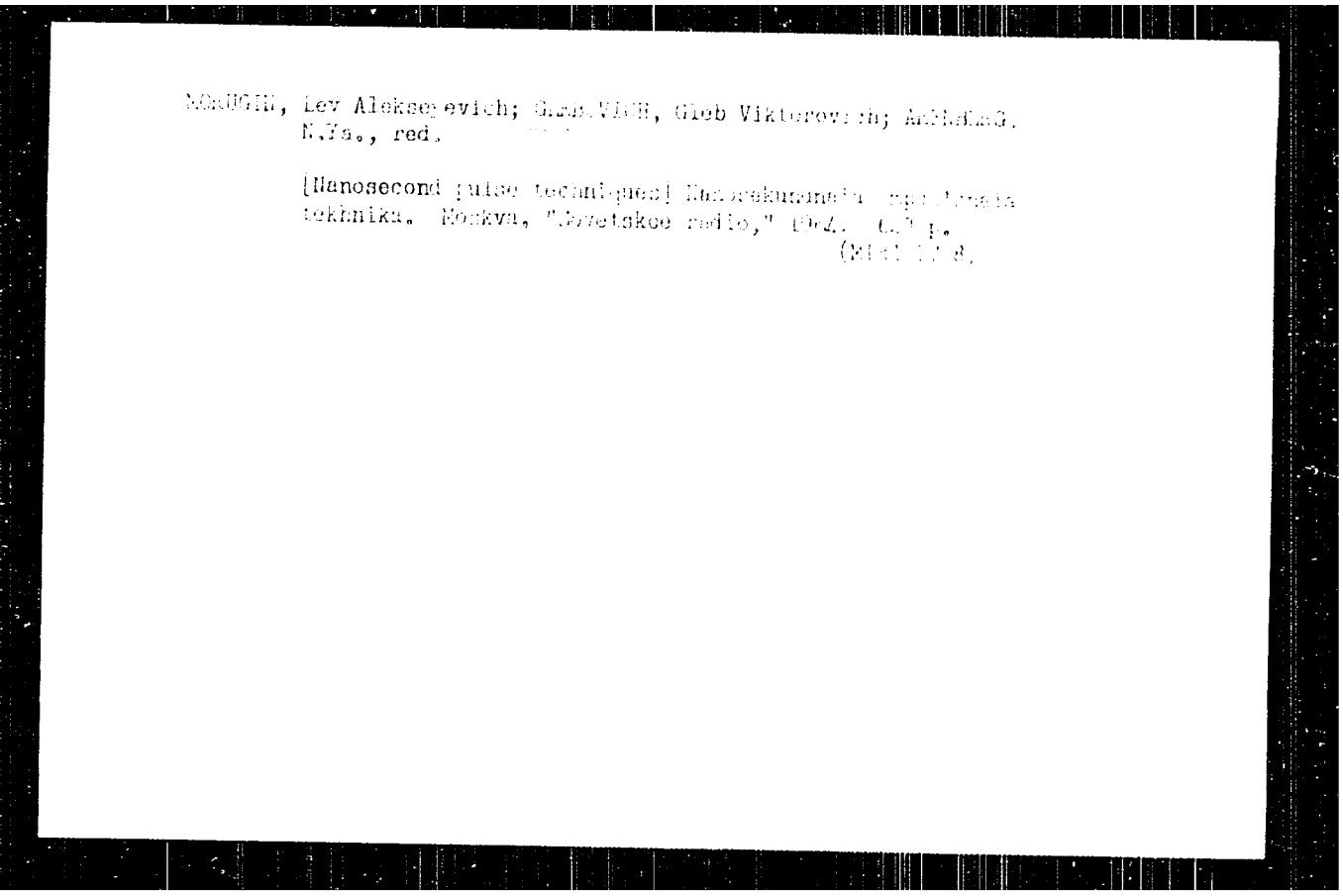

[illegible], Lev Alekseevich; [illegible], Gleb Viktorovich; [illegible], N.Ya., red.

[Nanosecond pulse technique] Nanosekundnaia [illegible] tekhnika. Moskva, "Sovetskoe radio," 1962. [illegible] p. (Mis[illegible]

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L 64474-65 EWT(l)/EEC(k)-2/EED-2/EIIA(h) MW

ACCESSION NR: AR5006548 S/0274/64/000/012/A089/A089

621.317.755

SOURCE: Ref. zh. Radiotekhnika i elektrosvyaz' Sv. t., Abs. 12A506

AUTHOR: Bartenev, L. S.; Glebovich, G. V.; Ptitsyn, K. N.

TITLE: Peculiarities in the development of a superhigh-speed oscillograph

CITED SOURCE: Tr. po radiotekhn. elektrotekh. i energ. Gor'kovsk. politekh. in-t., no. 2, 1964, 40-47

TOPIC TAGS: electronic oscillograph, superhigh speed oscillograph

TRANSLATION: Methods are suggested for overcoming the fundamental difficulties in the oscillograph development. A [illegible]

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minimum duration of test pulses is calculated, and the principal circuit of a laboratory model is presented. Bibliography: 6 titles.

SUB CODE: EC ENCL: 00

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"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030002-1

ACCESSION NR: AP4024435 S/0142/64/007/001/0042/0050

AUTHOR: Glebovich, G. V.

TITLE: Transients in distributed systems during transmission and formation of nanosecond pulses

SOURCE: IVUZ. Radiotekhnika, v. 7, no. 1, 1964, 42-50

TOPIC TAGS: nanosecond pulse, video pulse, nanosecond video pulse, coaxial line, strip line, dielectric losses, copper losses, pulse distortion, polyethylene filled coaxial cable, coaxial line transient characteristic, strip line transient characteristic

ABSTRACT: The transient characteristics of coaxial and strip lines used for the generation and shaping of millimicrosecond pulses are derived. It is shown that such pulses are greatly affected by the losses in the conductors and in the dielectrics, the latter becoming com[illegible]ith or even larger than the conductor losses at

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ACCESSION NR: AP4024485

gigacycle frequencies. The theoretically obtained distortion of nanosecond video pulses was checked experimentally with several polyethylene filled coaxial cables and the results agreed well with the theoretical predictions. It is concluded that in view of the great distortion of the nanosecond pulses, allowance must be made in the design of equipment for the losses in both the conductors and in the dielectric of the line. The rigorous analytic expressions are rather complicated and can be solved only by grapho-analytic means. However, an approximate expression for the transient characteristic of the coaxial and strip lines is given which is suitable for preliminary estimates. The geometrical dimensions of the strip line can be chosen such as to give results comparable with the better coaxial lines. Orig. art. has: 8 figures and 13 formulas.

ASSOCIATION: None

SUBMITTED: 25Dec62 DATE ACQ: 15Apr64 ENCL: 01

SUB CODE: GE, SD NR REF SOV: 005 OTHER: 001

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ACCESSION NR: AP4024485

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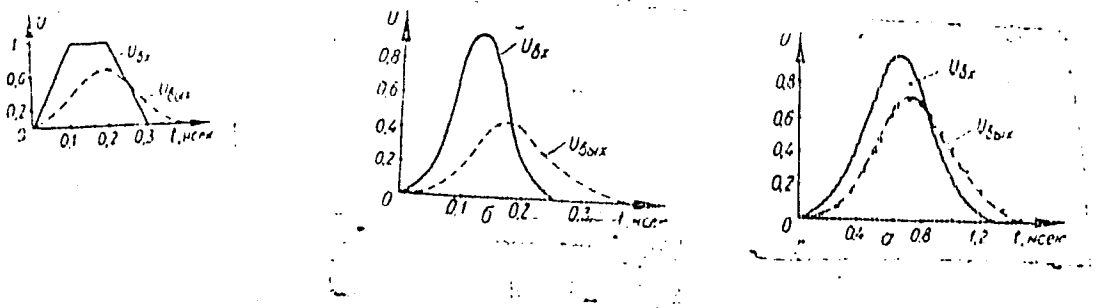

Pulses at input and output of 10 m length of RK-75-4-15 cable

$U_{вх}$ - input
$U_{вых}$ - output

abscissa - t, nanoseconds

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"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030002-1

GLEBOVICH, G.V.; ZHUKOV, O.V.

Distortions of nanosecond pulses transmitted by cable. Prib. i tekh. eksp. 9 no.1:102-105 Ja-F '64. (MIRA 17:4)

1. Gor'kovskiy politekhnicheskiy institut.

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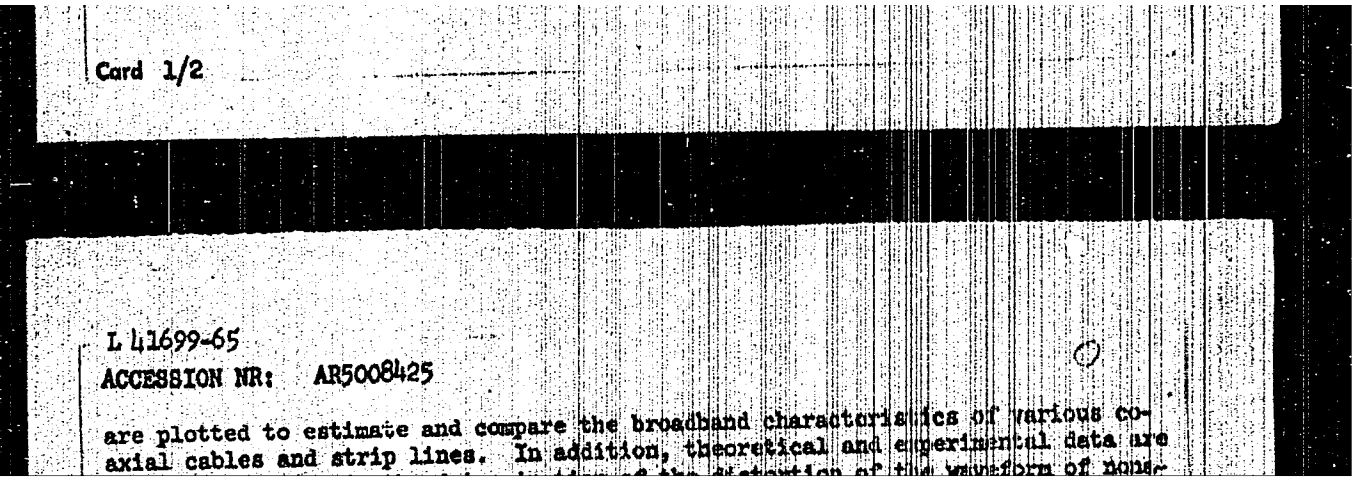

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are plotted to estimate and compare the broadband characteristics of various co-
axial cables and strip lines. In addition, theoretical and experimental data are

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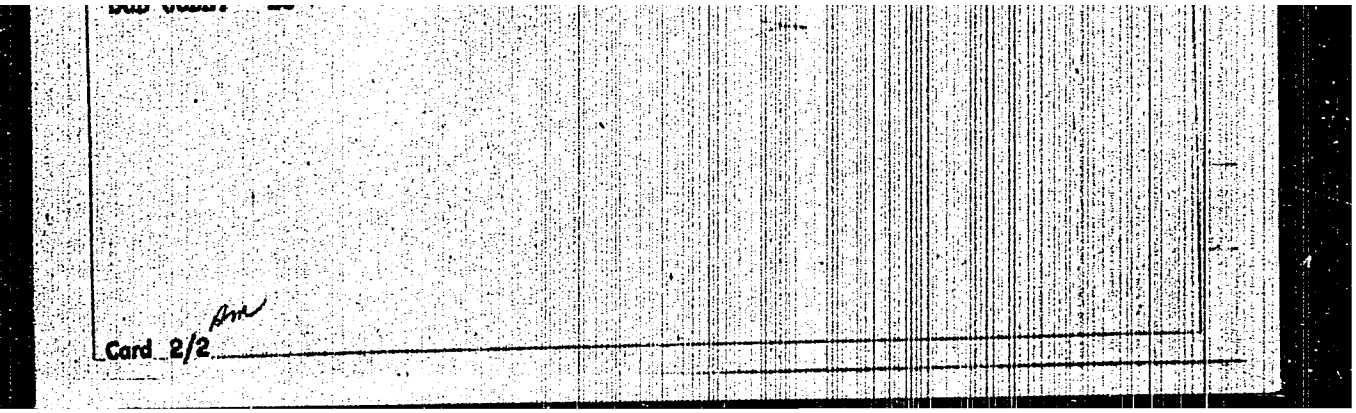

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L 39549-66 EWT(d) GD/JXT(CZ)

ACC NR: AT6008686 SOURCE CODE: UR/3063/64/020/002/0040/0047

AUTHOR: Bartenev, L. S. (Engineer); Glebovich, G. V. (Candidate of technical sciences); Ptitsyn, K. N. (Engineer)

ORG: none

TITLE: Peculiarities in the development of a superhigh-speed oscillograph

SOURCE: Gorkiy. Politekhnicheskiy institut. Trudy, v. 20, no. 2, 1964. Radiotekhnika, elektronika i energetika (Radio engineering, electronics and power engineering), 40-47

TOPIC TAGS: oscillograph, electron beam oscillograph, superhighspeed oscillograph

ABSTRACT: The following difficulties were encountered in developing an electron-tube oscillograph with a direct beam-sweep time of 4—5 nsec: (1) The

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ACC NR: AT6008686

nearest-to-linear midsegment of a steep voltage pulse (obtained from a nonlinear ferrite system) had to be used for sweep-voltage shaping (1 nsec, 500 v); (2) A diaphragm connected to the second anode had to be mounted behind the deflecting system; its window was so proportioned that the beam passed it only within the screen size, thus eliminating the undesirable stray lighting of the screen; (3) Test impulse distortion was minimized by using RK-3, RK-6, or RK-50-11-13-type Soviet-made cable and TW or coaxial deflecting system; (4) For calibrating the pulse duration, a telescopic coaxial delay line is recommended. The minimum distortion-permissible duration of the test impulse can be determined from: $\Delta t_0 \geqslant 100\, \Delta t/a$, where Δt is the combined delay caused by the tube and cable and "a" is the specified percentage error of reproduction. The stability of the oscillograph operation largely depends on the stability of bias voltage on the slave stages. A laboratory hookup (oscillograms and circuit diagram shown) permitted recording 10^{-10} -sec processes. Orig. art. has: 3 figures and 10 formulas.

SUB CODE: 09 / SUBM DATE: none / ORIG REF: 006

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"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030002-1

ACC NR: AP6033261 SOURCE CODE: UR/0109/66/011/010/1875/1877

AUTHOR: Glebovich, G. V.

ORG: none

TITLE: Transient characteristics of superconducting strip transmission lines

SOURCE: Radiotekhnika i elektronika, v. 11, no. 10, 1966, 1875-1877

TOPIC TAGS: transmission line, superconductivity

ABSTRACT: Strip transmission lines with a passband of 10—15 Gc are theoretically considered. By using the R. Kaplan et al. formula for surface impedance (Phys. Rev., 1959, 114, 2, 270) and physical parameters of Nb and Pb working as superconductors (P. Shizume et al., IRE Internat. Conven. Rec., 1962, 3, 95), this formula for the transient characteristic is deduced: $H(t_1) = \frac{2}{\pi}\frac{t_1\sqrt{\pi}}{2a}\sum_{k=0}^{\infty}\frac{(-1)^k}{k!(2k+1)}\left(\frac{t_1}{2a}\right)^{2k} \approx \Phi\left(\frac{t_1}{2a}\right)$, where $\Phi(t_1/2a)$ is the Kramp function; $t_1 = t - l\sqrt{LC} = t - t_3$; t_3 is the pulse delay in l-long line; $a^2 = Bl$. Two transient characteristics for 10-m and 30-m Pb-lines are plotted; pulse-rise times are 11 and 17 nsec, respectively. Orig. art. has: 2 figures and 19 formulas.

SUB CODE: 09 / SUBM DATE: 07Feb66 / ORIG REF: 002 / OTH REF: 003

Card 1/1

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"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030002-1

ACC NR: AP6022009 SOURCE CODE: UR/0120/66/000/003/0132/0134

AUTHOR: Glebovich, G. V.

ORG: Gor'kiy Polytechnical Institute (Gor'kovskiy politekhnicheskiy institut)

TITLE: The transient characteristics of a coaxial cable at the temperature of liquid nitrogen

SOURCE: Pribory i tekhnika eksperimenta, no. 3, 1966, 132-134

TOPIC TAGS: coaxial cable, low temperature effect, nanosecond pulse

ABSTRACT: The transient characteristics of a coaxial cable at the temperature of liquid nitrogen have been computed. It is shown that the settling time is one order of magnitude less compared with the characteristics of the cable at room temperature. Experimental data are presented to confirm the results of the calculations. The following approximate equation was used to compute the transient characteristics at room temperature taking into account the losses in the conductors and in the dielectric:

$$h(t_1, l) = 1 - \operatorname{erf}\left(\frac{\beta_\Gamma l}{2\sqrt{\pi f_\Gamma t_1}}\right),$$

where β_Γ is the attenuation of the cable at the cut-off frequency of its passband f_Γ

UDC: 621.315.212:621.391.833

Card 1/2

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"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030002-1

ACC NR: AP6022009

for given length l taking into account the losses in the conductors and in the dielectric, $t_1 = t - t_3$, where t_3 is the delay time of a cable with length l. At a temperature of 77°K the losses in the dielectric are very small and can be neglected as compared to the losses in the conductors. This makes it possible to compute the transient characteristics using the following exact formula which does not take into account dielectric losses

$$h(t_1, l) = 1 - \operatorname{erf}\left(\frac{bl}{2\sqrt{t_1}}\right),$$

where the constant b is determined by the structural characteristics of the cable. The transient characteristics of the RK-75-4-21 cable, 10, 20 and 30 meters in length at room temperature and at a temperature of 77°K, were computed by the above equations and plotted. These results were compared with data obtained experimentally which confirmed the validity of the analytical approach. It was shown that when the temperature of the coaxial cable is reduced to 77°K, its transmission characteristics for nanosecond and picosecond pulses are substantially improved. Orig. art. has: 2 formulas, 3 figures.

SUB CODE: 09/ SUBM DATE: 31May65/ ORIG REF: 002/ OTH REF: 001

Card 2/2

APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030002-1"

"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030002-1

GLEBOVICH, O.V.

GLEBOVICH, O.V., kandidat meditsinskikh nauk

Modifications in bone marrow hemopoiesis during and after tuberculous intoxication. Probl.tub. no.1:58-64 Ja-F '55. (MLRA 8:4)

1. Iz Voyenno-meditsinskoy akademii imeni S.M.Kirova (Leningrad)
(TUBERCULOSIS, PULMONARY, blood in, hemopoiesis)
(HEMOPOIESIS, in various diseases, tuberc., pulm.)

APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030002-1"

"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030002-1

USSR/Pharmacology and Toxicology. Chemotherapeutic Preparations V-7
Antitubercular Drugs

Abs Jour : Ref Zhur - Biol., No 15, 1958, No 71298

Author : Glebovich O.V.
Inst :
Title : Qualitative Changes of Neutrophils in the Treatment of Pulmonary Tuberculosis with Streptomycin and PAS

Orig Pub : Probl. tuberkuleza, 1957, No 3, 58-62

Abstract : Observations were carried out on 125 patients with various forms of tuberculosis; out of them, in 99, disintegration of the lung tissue was ascertained. The determination of the amount of pathological granulosity (PG) and the shift of the neutrophilic nuclei was effected according to Arneth's method on an empty stomach with 7-day intervals. Previous to the treatment, the PG was increased (to 15 percent) in 109 patients, especially in those with severe intoxication. In the treatment with streptomycin and PAS, a considerable decrease of neutrophils with PG was observed in a great majority of

Card : 1/2

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"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030002-1

GLEBOVICH, T. A.

"Boron in the Sea," Works of the Biogeochemical Laboratory of Academy of Sciences USSR, VIII, 1946 (224-252).
(Meteorologiya i Gidrologiya, No 6 Nov/Dec 1947)

SO: U-3218, 3 Apr 1953

APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030002-1"

"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030002-1

GLEBOVICH, T.A.

Determination of boron in natural waters. Vop.gidrogeol. i inzh. geol. no.19:172-182 '61. (MIRA 15:2)
(Water--Underground)
(Boron)

APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030002-1"

"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030002-1

SOKOLOV, I.Yu.; AYDIN'YAN, N.Kh.; BELEKHOVA, V.N.; BRODSKIY, A.A., starshiy nauchnyy sotrudnik; GLEBOVICH, T.A.; DALMATOVA, T.V.; KOMAROVA, A.I.; KOMAROVA, Z.V.; KOPYLOVA, M.M.; KUDRYAVTSEVA, M.M.; LIBINA, R.I.; LOGINOVA, L.G.; MARGOLIN, L.S.; MARKOVA, A.I.; MEDVEDEV, Yu.L.; MILLER, A.D.; MULIKOVSKAYA, Ye.P.; NECHAYEVA, A.A.; OZEROVA, N.V.; PALKINA, I.M.; PETROPAVLOVSKAYA, L.A.; POPOVA, T.P.; REZNIKOV, A.A.; SERGEYEV, Ye.A.; SETKINA, O.N.; STEPANOV, P.A.; SUVOROVA, Ye.G. [deceased]; SHERGINA, Yu.P.; PANOVA, A.I., red.izd-va; IVANOVA, A.G., tekhn.red.

[Methodological handbook on the determination of microcomponents in natural waters during prospecting for ore deposits] Metodicheskoe rukovodstvo po opredeleniiu mikrokomponentov v prirodnykh vodakh pri poiskakh rudnykh mestorozhdenii. Moskva, Gos.nauchno-tekhn. izd-vo lit-ry po geol. i okhrane nedr, 1961. 267 p.
(MIRA 14:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut gidrogeologii i inzhenernoy geologii (for Sokolov, Brodskiy, Glebovich, Ozerova, Kudryavtseva, Loginova, Markova, Medvedev, Belekhova, Palkina,

(Continued on next card)

APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030002-1"

"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030002-1

SOKOLOV, I.Yu.---(continued) Card 2.
Popova, Petropavlovskaya). 2. Institut geologii rudnykh mestorozhdeniy, petrografii, mineralogii i geokhimii AN SSSR (for Aydin'yan). 3. Vsesoyuznyy nauchno-issledovatel'skiy institut metodiki i tekhniki razvedki (for Miller, Sergeyev, Margolin). 4. Vsesoyuznyy nauchno-issledovatel'skiy geologicheskiy institut (for Mulikovskaya, Reznikov). 5. Vsesoyuznyy nauchno-issledovatel'skiy institut mineral'nogo syr'ya (for Komarova, A.).
(Prospecting--Geophysical methods)
(Water, Underground--Analysis)

APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030002-1"

"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030002-1

GLEBOVICH, Ya.O.; MALOV, A.D.

Extrapleural empyema caused by Salmonella infection. Sov.med. 20 no.11:84-86 N '56. (MLRA 10:1)

1. Iz kafedry tuberkuleza (nachal'nik - prof. V.M.Novodvorskiy) Voyenno-meditsinskoy Ordena Lenina akademii imeni S.M.Kirova.

(TUBERCULOSIS, PULMONARY, compl.
extrapleural empyema, isolation of Salmonella from exudate)
(SALMONELLA INFECTIONS
isolation of Salmonella from exudate in tuberc. extrapleural empyema)

APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030002-1"

"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030002-1

L 06171-67 EWT(m)/EWP(j)/EWP(t)/ETI IJP(c) JD/WW/JW/JG/JWD/RH
ACC NR: AP6029971 (A) SOURCE CODE: UR/0413/66/000/015/0162/0162

INVENTOR: Glebovitskiy, A. I.; Shumskiy, A. I.

ORG: none

TITLE: Igniter composition for detonator caps containing PETN as primer. Class 78, No. 184678

SOURCE: Izobret prom obraz tov zn, no. 15, 1966, 162

TOPIC TAGS: explosive, primer, PETN, detonator

ABSTRACT: The proposed igniter composition for detonators contains PETN as the primer. In order to increase the priming capacity of the PETN and the safety in handling the detonator, it contains the following components: 45—60% potassium perchlorate, 25—45% lead ferrocyanide, 5—25% aluminum powder, and 1—2% colloxyline or another cementing agent (over 100%). [W. A. 88] [PV]

SUB CODE: 19/ SUBM DATE: 27Jul64/

Card 1/1 UDC: 662.43

APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030002-1"

"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030002-1

NEYELOV, A.N.; GLEBOVITSKIY, V.A.; [illegible], A.G.; KOPAYEVICH, L.V.; SEDOVA, I.S.

Southwestern boundary and age of the Aldan Shield. Geol. i geofiz. no.11: 52-59 '62. (MIRA 16:3)

1. Laboratoriya geologii dokembriya AN SSSR, Leningrad.
(Aldan Plateau--Geology)

APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030002-1"

"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030002-1

GLEBOVITSKIY, V.A.

Mesozoic deformations and metamorphism of Archean rocks in the convergence area of the Aldan Shield and the orogenic zone of the Stanovoy Range. Trudy IAFAN SSSR.Ser.Geol. no.11:55-68 '62.
(MIRA 15:7)
(Aldan Plateau--Geology) (Stanovoy Range--Geology)

APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030002-1"

"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030002-1

GLEBOV-KOTEL'NIKOV, Erik Anatol'yevich; LIBERMAN, Erik Anatol'yevich; ZAV'YALOVA, A.N., red.; USHANOVA, S.N., ml. red.

[Mechanization of economic calculations in an enterprise] Mekhanizatsiia ekonomicheskikh raschetov na predpriiatii. Moskva, Ekonomika, 1965. 150 p. (MIRA 18:

APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030002-1"

"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030002-1

DOMNIN, N.A.; GLEBOVSKAYA, N.S.

Research data on polymethylene rings. Part 24. Reaction of cyclopentane- and cyclohexanediones with dimethylhydrazine. Zhur. ob. khim. 27 no.3: 665-668, Mr '57. (MLRA 10:6)

1. Leningradskiy gosudarstvennyy universitet.
(Cyclopentanedione) (Cyclohexanedione) (Hydrazine)

APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030002-1"

"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030002-1

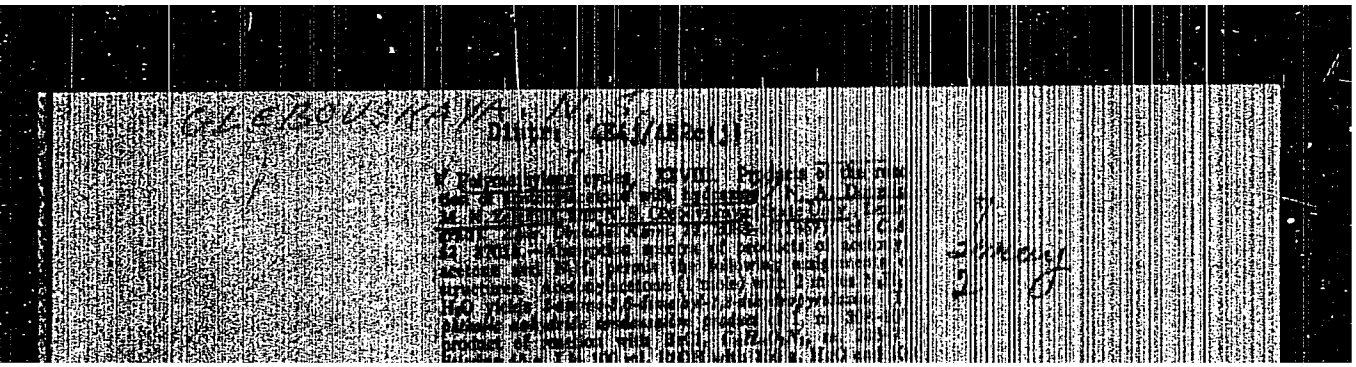
DOMNIN, N.A.; ZELENINA, M.N.; GLEBOVSKAYA, N.S.

Research in the field of polymethylene cycle. Part 27: Reactions and products of 1,4-cyclohexanedione and acetomylacetone with hydrazine and dimethylhydrazine. Zhur. ob. khim. 27 no.6:1516-1518 Je '57. (MLRA 10:8)

1. Leningradskiy gosudarstvennyy universitet.
(Cyclohexadione)(Hydrazine) (Hexanedione)

APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030002-1"

"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030002-1



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"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030002-1

DOMNIN, N.A.; GLEBOVSKAYA, N.S.

Some new derivatives of cyclic β-diketones. Zhur.ob.khim. 31 no.10:3481-3483 O '61. (MIRA 14:10)

1. Leningradskiy gosudarstvennyy universitet imeni A.A.Zhdanova.
(Ketone)

APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030002-1"

"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030002-1

GIFROVSKAYA, V. G.

Determining Thermal Constants of Rocks under Regular Conditions. Materialy Vses. n. i. geologich. in-ta Geofiziki (Material of the All-Union Geological Research Institute, Geophysics) Symposium 12, 1949 (?)-??).

SO: U-3039, 11 Mar 1953

APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030002-1"

"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030002-1

GRA.MAKOV, A.G.; GLEBOVSKAYA, V.S.; KHAIKOVICH, I.M.

Theory of the helium method. Vop.rud.geofiz. no.3:3-21 '61.
(MIRA 15:8)

(Radioactive prospecting)

APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030002-1"

"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030002-1

GRAMMAKOV, A.G.; GLEBOVSKAYA, V.S.; KHAYKOVICH, I.M.

Helium method of prospecting for the deposits of radioactive elements. Vop. rud. geofiz. no.5:3-19 '65. (MIRA 18:9)

APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030002-1"

"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030002-1

Spectra of porphyrins in petroleums and bitumens. B. A. Glebovskaya and M. V. Vol'kenshtein (Vsesoyuz. Nauch. Issledovatel. Neftyanoi Geol. Razvedoch. Inst. i Gosudarst. Opticheskii Inst.). *Zhur. Obshchei Khim.* (J. Gen. Chem.) **18**, 1440-51 (1948). (1) Alc. exts. of 15 samples of bituminous rocks, petroleums, and pure bitumens, of 5 samples of pure bitumens in $CHCl_3$ solns., and of the asphaltene and oil fraction of a bitumen in petroleum-ether and CdI_2 solns., showed, particularly with samples visibly colored greenish or reddish, and high in V or Ni, in addn. to the absorption bands at 570 and 544 mμ, characteristic of the V-porphyrin complex, also absorption at 550 and 508 mμ, wrongly attributed to an Fe complex, but actually belonging to a Ni-porphyrin complex. The heavy metals included in the complexes were identified by emission spectra of the ashes of the corresponding ext. residues. Whereas the V-porphyrin complex is acid, the Ni complex appears to be neutral, and is not extd. by alc.; consequently, extn. with alc. does not detect all of the porphyrin in petroleum products. The V complex is concd. mainly in the asphalt-resin fraction of the bitumen. Presence of the V and Ni complexes of porphyrin, and, more generally, presence of V and Ni, which are residues of the corresponding porphyrin complexes, is an indication of animal origin. (2) The porphyrin ring can be represented by 4 "diagonal" forms, corresponding to Kékulé structures of an 18-member ring, symmetry class D_{2h}, and 4 "lateral" Kékulé structures, of symmetry C_{2v}. Superposition of these 8 structures results in a symmetry very close to D_{4h}. The absorption spectrum of the porphyrin ring, being detd. by the cyclic system of double bonds, can be compared with that of C_4H_8. In particular, the band at ~ 400 mμ should correspond to $N \rightarrow V$ (charge transfer) Mulliken and Riche, *C.A.* **36**, 6888[9]) band of C_4H_8, at ~ 1900 A., whereas the weaker long-wave bands, 487, 518, 561, 613 mμ, with a vibrational structure, should, in analogy with the 2650 A. band of C_4H_8, correspond to the forbidden electronic transition. Their appearance is due by the deviation from the strict D_{4h} symmetry, by asym. vibrations of the ring and by deformation of the mol. in a D_{2h}. Metal complexes of porphyrins have a strict D_{4h} symmetry. By the magnetic moments, hemin and hemoglobin, with ionic Fe—N bonds, are represented by Kekulé structures of a 16-member ring, hematin and parahematin, with covalent Fe—N bonds, by Kekulé structures of a 20-member ring. These considerations remain valid also for porphyrin complexes with Ni and V. The intense V band is preserved in the metal complexes, but the long wave bands are considerably simplified, partly at least on account of the strict D_{4h} symmetry.

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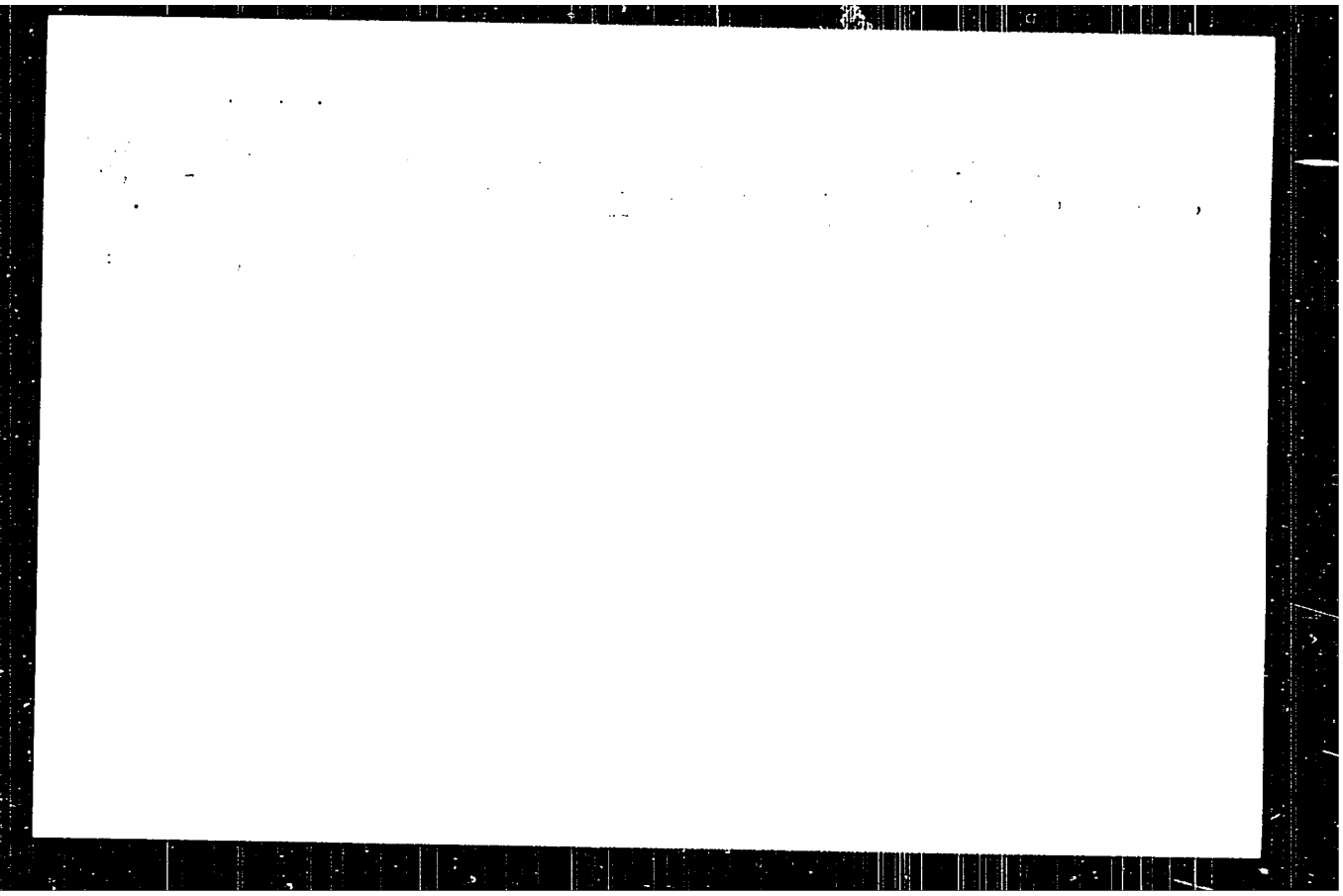

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"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030002-1

GLEBOVSKAYA, Ye. A. and ZAKHAROV, A. A.

"Studying Bitumens by means of the Infra-Red Absorption Spextra method", (Issledovaniye bitumov metodom infrakrasnykh spektrov pogloshcheniya), DAN SSSR / Reports of the Academy of Sciences, USSR/, Vol. 63, No 5, 1953.

APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030002-1"

"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030002-1

Glebovskaya, E. A.

Investigation of bitumens through infrared absorption spectra. E. A. Glebovskaya and A. A. Zakharov. *Doklady Akad. Nauk S.S.S.R.* 93, 805–8(1953); cf. *C.A.* 48, 13203*d*.—Various fractions of bitumens were investigated via infrared absorption for constituent groups and group types. John A. Kryuitzky

(1)

APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030002-1"

"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030002-1

VEBER, V.V., professor; GINZBURG-KARAGICHEVA, T.L.; GLEBOVSKAYA, Ye.A.; GORSKAYA, A.I.; ZAKHAROV, A.A.; MANUCHAROVA, Ye.A.[deceased]; MEKHTIYEVA, V.L.; ROMM, I.I.; SAVICH, V.G.; TALDYKINA, N.N., FOKINA, N.I.; YURKEVICH, I.A.; MIRCHINK, M.F., professor, redaktor; L'VOVA, L.A., redaktor; TROFIMOV, A.V., tekhnicheskiy redaktor.

[Accumulation and transformation of organic substances in recent sea sediments; in the light of the problem of oil origin] Nakoplenie i preobrazovanie organicheskogo veshchestva v sovremennykh morskikh osadkakh; v aspekte problemy proiskhozhdeniia nefti. Sbornik statei pod red. M.F.Mirchink. Moskva, Gos. nauchno-tekhn. izd-vo neftianoi i gorno-toplivnoi lit-ry, 1956. 342 p. (MLRA 9:6)

1.Vsesoyuznyy nauchno-issledovatel'skiy geologorazvedochnyy institut.
2. Chlen korrespondent AN SSSR (for Mirchink)
(Sapropelites) (Marine biology) (Petroleum geology)

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"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030002-1

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 7, 16-57-7-2756
p 152 (USSR)

AUTHOR: Glebovskaya, Ye. A.

TITLE: Use of the Method of Infrared Absorption Spectra in Geochemical Study of Petroleum (Primeneniye metoda infrakrasnykh spektrov poglocheniya v issledovaniyakh po geokhimii nefti)

PERIODICAL: Tr. Vses. neft. n.-i. geologorazved. in-ta, 1956, Nr 95, pp 441-480

ABSTRACT: Spectral studies have shown that analogous fractions of present-day and early sediments, as well as of petroleums, differ in character and quantitative content of aromatic structures and oxygen compounds and in number of paraffin structures. The bitumens of present-day sediments are characterized by the presence of simple aromatic structures. The bicyclic condensation structures which occur in the bitumens are more

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Use of the Method of Infrared Absorption (Cont.)

complex and are apparently of a mixed aromatic type. Tricyclic condensation structures, characteristic of petroleum oils, are absent. Paraffin structures are most common in the oils of bitumens of present-day sediments; a large part of these are oxygen compounds (chiefly aliphatic esters). The bitumens of early rock are also quantitatively impoverished in aromatic structures, as compared with petroleums; however, they have many other properties in common with petroleums. They also have a predominance of paraffin structures; these are present not only in the oxygen compounds, but also in the form of solid hydrocarbons. The oxygen compounds are characterized by a predominance of aliphatic structures as in the bitumens of present-day sediments. In the opinion of the author, this indicates a qualitative similarity of these structures and a genetic relation between the two types of bitumens. Bitumens are divided into two types according to the character of the oxygen compounds, as follows: a "petroleum" type, associated with rock of high bitumen content, and a "nonpetroleum" type, associated with rock of low bitumen content. The resinous substances of the bitumens of present-day

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"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030002-1

Use of the Method of Infrared Absorption (Cont.) [illegible]

sediments differ in absorption spectra from those of the petroleums and dispersed bitumens of early rock. These resinous substances are excluded from the processes of petroleum formation, since they are converted into insoluble organic substances.

Card 3/3 G. A. Vladyshova

APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030002-1"

"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030002-1

VEBER, V.V.; GORSKAYA, A.I.; GLEBOVSKAYA, Ya.A.

Hydrocarbons in Quaternary marine deposits. Geol. nefti 1 no.12:9-15 D '57. (MIRA 11:1)

1. Vsesoyuznyy nauchno-issledovatel'skiy geologo-razvedochnyy neftyanoy institut.
(Hydrocarbons) (Petroleum in submerged lands)

APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030002-1"

"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030002-1

GLEBOVSKAYA, Ye.A.; SHISHKOVA, A.P.

Use of infrared absorption spectra in determining sulfide sulfur in asphalt-tar fractions of petroleum. VNIGRI no.105:11-22 '57.
(MIRA 11:9)

(Petroleum--Spectra)

APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030002-1"

"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030002-1

GLEBOVSKAYA, Ye.A.; ZAKHAROV, A.A.; LAPINA, I.K.; KAPLAN, Z.G.

Absorption spectra of benzene in 5 - 6 region. VNIGRI no.105: 23-36 '57. (MIRA 11:9)
(Benzene--Spectra)

APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030002-1"

"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030002-1

GLEBOVSKAYA, Ye.A.

Some geochemical problems of petroleum genesis. Trudy VIGRI no.123: 92-97 '58. (MIRA 11:12)
(Petroleum geology)

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"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030002-1

GLEBOVSKAYA, Ye.A.; MAKSIMOV, E.I.; PETROV, A.K.

Possibility of determining CH_3- and CH_2- groups by infrared absorption spectra within the 3000 - 2700 cm^{-1} range. Trudy VNIGRI no.123:243-252 '58. (MIRA 11:12)
(Hydrocarbons--Spectra) (Spectrum, Infrared)

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"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030002-1

KATCHENKOV, Semen Mikhaylovich; GLEBOVSKAYA, Ye.A., nauchnyy red.; BARKOVSKIY, I.V., vedushchiy red.; GENNAD'YEVA, I.M., tekhn.red.

[Trace elements in sedimentary rocks and petroleums] Malye khimicheskie elementy v osadochnykh porodakh i neftiakh. Leningrad, Gos.nauch.-tekh. izd-vo neft. i gornotoplivnoi lit-ry. Leningr. otd-nie, 1959. 271 p. (Leningrad. Vsesoiuznyi neftianoi nauchno-issledovatel'skii geologorazvedochnyi institut, Trudy, no.143. (MIRA 13:1)
(Trace elements)

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"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030002-1

5(3) SOV/75-14-4-17/30

AUTHORS: Glebovskaya, Ye. A., Maksimov, E. I., Petrov, A. K.

TITLE: Quantitative Determination of CH_2-Groups in Open Chains With Not Less Than Four Links

PERIODICAL: Zhurnal analiticheskoy khimii, 1959, Vol 14, Nr 4, pp 478-482 (USSR)

ABSTRACT: The methane-naphthene parts of the hydrocarbons in petroleum or bitumen can be characterized by their CH_3 and CH_2 group content by application of infrared spectroscopy. These two groups are separately determined by the oscillations of the CH-bonds. The deformation vibrations as well as the valency vibrations of the groups CH_3 and CH_2 have different frequencies and are characterized by the difference in the absorption intensity. In the present paper the deformation vibrations of the CH-bonds are used for the quantitative determination of the CH_2-group-content in open chains with more than four links. The deformation vibrations of CH-bonds in methylene groups appear in the range of 800-700 cm^{-1} as wide absorption bands. Liquid normal paraffins

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give one single band at 720 cm^{-1}. This band is divided into two components (Refs 1, 3) in the case of crystalline normal paraffins, fatty acids, and other compounds with methylene chains. Table 1 gives the relation between the characteristic frequencies of the deformation vibrations of the CH_2-group and the length of the chain (Ref 4). Molecules not containing chains of more than four links of the CH_2-group do not absorb in the range of 13.8 - 13.9 μ (725 - 720 cm^{-1}). The authors investigated the absorption in the range from 13.2 to 14.4 μ. Measurements were made by means of the one-ray instrument IKS-11; no solvent was used. First the group absorption coefficient of the substance concerned has to be determined for the quantitative determination of the CH_2 group, as this coefficient has different values in different instruments and under different determination conditions. In the determination of liquid and solid substances it is necessary to know the molecular weight and density of the substance to be able to determine the CH_2 group content as a

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number of CH_2 groups per molecule. For computing the part by weight of the CH_2 groups in the solution only the molecular weight must be known. The accuracy of the determination is ± 1 in the computation of the number of the CH_2 groups in the molecule and ~10% in the determination of the part by weight. 2 tables show the results of the measurements of the integral intensity of the absorption in the range 13.2 - 14.4 μ for the computation of the number of CH_2 groups per molecule for the alkanes from heptane to heptadecane (Table 2) and for the solid paraffins $C_{36}H_{74}$, $C_{20}H_{42}$ and stearic acid (Table 3). Table 4 gives the results of the measurement of the integral intensity of absorption in the range 13.2 - 14.4 μ for the determination of the part by weight of CH_2 groups for the alkanes from heptane

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Quantitative Determination of CH_2-Groups in Open Chains With Not Less Than Four Links SOV/75-14-4-17/30

to heptadecane. Table 5 gives the results of analyses of artificial mixtures of hydrocarbons concerning their contents of CH_2 groups ($n \geq 4$). There are 1 figure, 5 tables, and 9 references, 7 of which are Soviet.

ASSOCIATION: Vsesoyuznyy neftyanoy nauchno-issledovatel'skiy geologorazvedochnyy institut, Leningrad (All-Union Scientific Research Institute for Geologic Prospecting of Petroleum, Leningrad)

SUBMITTED: March 19, 1957

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APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030002-1"

"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030002-1

21(7), 7(3)
AUTHORS: Klebovskaya, Ye. A., Maksimov, E. I. SOV/48-23-10-9/39

TITLE: The Quantitative Determination of the CH_2-Groups of Open Chains by Means of Infrared Absorption Spectra

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1959, Vol 23, Nr 10, pp 1194-1195 (USSR)

ABSTRACT: The authors give a report on some results obtained by their investigations within the frequency range of 700 - 800 cm^{-1} (deformed CH-oscillations of the CH_2 groups), which aimed at determining the number of CH_2 groups in a chain. For these investigations a spectrometer of the type IKS-11 was used. The hydrocarbons were investigated, without a solution being produced, in layers of 0.06 mm thickness. As quantitative measure of absorption the integral band intensity, which is measured in cm^2 - the area that is bounded by the curve of optical density and the "base line" (cf. figure 1) was used. In this way the absorption coefficient was determined empirically for a great

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number of hydrocarbons, by using the formula $K = \frac{SV_M}{n}$, where S denotes the measured area of the absorption band, V_M - the molecular volume (M/d, where M is the molecular weight and d density), and n - the number of CH_2 groups in the molecule.

The K-values found according to this formula are given by table 1. The mean value of K=(205)- may be used for determining n in mixtures of methane-naphthene hydrocarbons. The authors recently synthesized such mixtures and also measured and calculated the mean n-value (Table 2); agreement is good. These results relate to liquid samples. Also crystalline substances were investigated and the following K-values were determined empirically:

$n\text{-}C_{36}H_{74}$	n=34	K=163
$n\text{-}C_{20}H_{42}$	18	162
$n\text{-}C_{17}H_{35}COOH$	16	164

For the purpose of determining n by means of K according to the above formula it is necessary to know V_M, i.e. M and d.

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The Quantitative Determination of the CH_2-Groups of Open Chains by Means of Infrared Absorption Spectra

SOV/48-23-10-9/39

If only the CH_2 group-content in percentage by weight is determined, the formula $K_1 = S/c_1 dx$ (c_1 - weight concentration of the CH_2 groups, d - specific weight, x - layer thickness, S - the measured area of the absorption band) may be used. If the determination is carried out in solution, the process is even more simple: the formula $K_2 = S/c_2 n$ is used, where c_2 is the molecular concentration of the standard in the solution, and $c_2 n$ - the CH_2 group concentration. In this case d need not be known. There are 1 figure, 2 tables, and 3 references, 1 of which is Soviet.

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"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030002-1

VEBER, Vasiliy Valerianovich; GORSKAYA, Aleksandra Ivanovna; GLEBOVSKAYA, Yekaterina Aleksandrovna; VEBER, V.V., red.; KUZ'MINA, N.N., vedushchiy red.; POLOSINA, A.S., tekhn.red.

[Bitumen formation in Quaternary sediments and the genesis of petroleum] Bitumoobrazovanie v chetvertichnykh osadkakh i genezis nefti. Moskva, Gos.nauchno-tekhn.izd-vo neft. i gorno-toplivnoi lit-ry, 1960. 243 p. (MIRA 13:11)
(Petroleum geology)

APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030002-1"

"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030002-1

GLEBOVSKAYA, Ye.A.; VASILENKO, V.K.

Relationship between the composition of bitumens and the conditions of sediment accumulation (taking as an example the deposits of the Kenderlyk trough, Saur Range). Trudy VNIGRI no.155:55-61 '60.
(MIRA 14:1)

(Kenderlyk Valley—Bitumen--Geology)
(Sediments (Geology))

APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030002-1"

"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030002-1

USPENSKIY, V.A.; RADCHENKO, O.A.; GLEBOVSKAYA, Ye.A.; SHLSHKOVA, A.P.; MEL'TSANSKAYA, T.N.; INDENBOM, F.B.; Prinimali uchastiye: KOLOTOVA, L.F., khimik; CHAGINA, T.P., tekhnik; BASKINA, T.B., laborant; VIKULINA, M.N., laborant; POLOVNIKOVA, I.A., fizik; PETROV, A.K., tekhnik; PONOMAREV, B.P., laborant; KHYAMYALYAYNIN, L.B., laborant; KLOCHKOV, B.N., laborant; RAGINA, G.M., vedushchiy red.; SAFRONOVA, I.M., tekhn.red.

[Basic processes of the transformation of bitumens in nature and the problems of their classification] Osnovnye puti preobrazovaniia bitumov v prirode i voprosy ikh klassifikatsii. Leningrad, Gos.nauchno-tekhn.izd-vo neft.i gorno-toplivnoi lit-ry Leningr.otd-nie, 1961. 314 p. (Leningrad. Vsesoiuznyi nauchno-issledovatel'skii geologorazvedochnyi institut. Trudy, no.185). (MIRA 15:4)

(Bitumen--Geology)

APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030002-1"

"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030002-1

IVANOV, S.N.; KURITSINA, G.A.; GLEBOVSKAYA, Ye.A.

Bitumen in pyrite ores and ore-bearing rocks of the Urals. Geokhimiya no. 3:268-273 '61. (MIRA 14:4)

1. Gorno-geologicheskiy institut Ural'skogo filiala AN SSSR, Sverdlovsk.

(Ural Mountains—Bitumen)

APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030002-1"

"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030002-1

GLEBOVSKAYA, YEKATERINA ALEKSANDROVNA

PHASE I BOOK EXPLOITATION SOV/6346

Bol'shakov, Gennadiy Fedorovich, and Yekaterina Aleksandrovna Glebovskaya

Geteroorganicheskiye soyedineniya reaktivnykh topliv (Hetero-organic Compounds in Jet Fuels) Leningrad, Gostoptekhizdat, 1962. 219 p. Errata slip inserted. 1800 copies printed.

Scientific Ed.: V. A. Uspenskiy; Executive Ed.: Z. G. Segal'; Tech. Ed.: I. M. Safronova.

PURPOSE: This book is intended for scientists and engineers concerned with the chemistry, technology, and utilization of jet fuels and petroleum products. It can also serve as a textbook for students at petroleum institutes.

COVERAGE: The book gives a systematic review of the composition and properties of hetero-organic compounds present in jet fuels TC-1, T-1, T-2, and T-5 and their effect on the thermal and oxidation stability and corrosiveness of these fuels. The ДА-type fuel

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is also considered. The use of infrared spectroscopy for the study of the chemical structure of such hetero-organic compounds is discussed. These compounds are regarded as an important potential source of raw materials for the chemical industry. The authors thank Prof. Ya. B. Chertkov, Prof. A. F. Dobryanskiy, Docent P. I. Davydov, and Docent F. Yu. Rachinskiy. There are 216 references, 112 of which are Soviet.

TABLE OF CONTENTS [Abridged]:

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"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030002-1

DAVYDOV, P.I.; BOL'SHAKOV, A.F.; GLEBOVSKAYA, Ye.A.

Investigating the effect of nitrogen bases on the stability of fuels at increased temperatures. Khim. i tekh. topl. i masel 7 no.10:30-36 [illegible] (MIRA [illegible])

APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030002-1"

"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030002-1

GLEBOVSKAYA, Ye.A.

Determination of some characteristics of the petroleum composition from infrared absorption spectra. Trudy VNIGRI no.212. Geokhim.sbor. no.8: 220-229 '63. (MIRA 16:12)

APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030002-1"

"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030002-1

S/032/63/029/002/010/028
B101/B186

AUTHORS: Glebovskaya, Ye. A., and Bol'shakov, G. F.

TITLE: Application of infrared spectrophotometry to investigations of petroleum products

PERIODICAL: Zavodskaya laboratoriya, v. 29, no. 2, 1963, 172-175

TEXT: This paper was presented at the Soveshchaniye po spektroskopii (Conference on Spectroscopy) held in Gor'kiy on July 5-12, 1961. It reports attempts to identify sulfurous compounds in petroleum products on the basis of their IR spectra. The sulfurous concentrates of the fuels ДА(DA), ТС-1 (TS-1), and Т-1 (T-1) were investigated. Only the general characteristics of the molecular structures could be determined in the range of 3-15μ. In the resin fractions only the presence of oxygen-containing and aromatic structures could be found although the sulfurous concentrates of these fractions contained up to 13% S. The spectra of sec-octyl mercaptane, α-hexyl thiophane, α-(2-methyl butyl)-thiophane, α-(2-methyl amyl)-thiophane, α-octyl thiophane, α-(3-phenyl propyl)-thiophane, thiophene, α-octyl thiophene, diiso-sec-heptyl sulfide,
Card 1/2

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"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030002-1

isohexyl phenyl sulfide, and di-sec-octyl disulfide were studied in the range of 16-20μ. The sulfides and disulfides showed no characteristic bands in this range, but the heterocyclic compounds were characterized as follows: thiophenes by bands in the range of 18-18.4μ, thiophanes by bands at 17.7μ. Among the fuels investigated, DA indicated the presence of mercaptanes by an 18.5μ band which was missing for TS-1. The 17.5 μ band suggested a content of thiophanes. Neither the mercaptanes nor the thiophanes could be determined potentiometrically in these concentrates. Therefore, the group of "non-determinable sulfur" consists of heterocyclic thio structures. There are 3 figures.

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"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030002-1

USPENSKIY, V.A.; RADCHENKO, O.A.; GLEBOVSKAYA, Ye.A.; GORSKAYA, A.I.; SHISHKOVA, A.P.; PARPAROVA, G.M.; KOLOTOVA, L.F.; MEL'TSANSKAYA, T.N.; NERUCHEV, S.G., red.

[Principles of the genetic classification of bitumens.] Osnovy geneticheskoi klassifikatsii bitumov. Leningrad, Nedra, 1964. 266 p. (Leningrad, Vsesoiuznyi neftianoi nauchno-issledovatel'skii geologorazvedochnyi institut. Trudy. no.230).
(MIRA 17:7)

APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030002-1"

"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030002-1

BOL'SHAKOV, G.F.; GLEBOVSKAYA, Ye.A.

Thermal oxidizing transformations of sulfur compounds in the medium of normal hexadecane. Trudy VNIGRI no.227 Geokhim.sbor. no.9:37-56 '64. (MIRA 18:1)

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"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030002-1

L 18019-66 EWT(m)/EWP(j)/T WE/RM
ACC NR: AP6006450 SOURCE CODE: UR/0065/66/000/002/0047/0049

AUTHOR: Chertkov, Ya. B.; Bol'shakov, G. F.; Glebovskaya, Ye. A.; Englina, G. B. 55 54 B

ORG: none

TITLE: Structure of insoluble fraction of resins of medium boiling range petroleum [jet] fuels 55.44

SOURCE: Khimiya i tekhnologiya topliv i masel, no. 2, 1966, 47-49

TOPIC TAGS: jet fuel, fuel gumming property, fuel additive

ABSTRACT: A study has been made of gum formation in straight-run T type [T-1, TS-1, and T-2] [jet] fuels (GOST 10227-62). Resins soluble in the fuels were isolated by silica gel chromatography and divided into three fractions: heptane-, benzene-, and methanol-soluble fractions; in the absence of the heptane-soluble fraction, the other two were insoluble in the fuel. The resins were put back in various amounts into deresinified-fuel samples. Then the sample was stored for one year at room temperature with or without access of atmospheric oxygen, after which existent gums were determined gravimetrically and subjected to IR analysis. It was found that with increasing number of hetero atoms and functional groups in the resin molecule, resin solubility in the fuel decreased. With increasing amount of resins added to the fuel, gums increased. Obviously, the high-molecular-weight portion of the resins, particularly the fuel-insoluble resins, very strongly activated the formation of

Card 1/2 UDC: 001.5:665.521.3

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"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030002-1

L 18019-66
ACC NR: AP6006450

insoluble gums similar to them. The gums were formed by the reaction of compounds of various molecular weights via free oxygen- and sulfur-containing functional groups, and via certain unsaturated bonds in hydrocarbon radicals of hetero atom-containing compounds. When the fuel was in contact with oxygen, gums increased sharply, which confirms the oxidation-polymerization character of gum formation. Gum formation could be limited or prevented by additives. For example, in the presence of 0.005% of a mercaptobenzothiazole derivative [unspecified] in heptane-soluble resin-containing fuel stored for one year in the presence of atmospheric oxygen, the amount of gums formed was 1/5 of that formed in the absence of the additive. Orig. art. has: 1 figure. [SM]

SUB CODE: 21/ SUBM DATE: none/ ORIG REF: 001/ ATD PRESS: 4212

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"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030002-1

GLEBOVSKIY, A.V.; FEDOROV, Vikt.K.

Comparative physiological investigations on the mobility of neural processes. Zhur. vys. nerv. deiat. 4 no.3:424-432 My-Je '54. (MLRA 8:2)

1. Institut fiziologii imeni I.P.Pavlova Akademii nauk SSSR.
(NERVOUS SYSTEM, physiology,
lability of neural processes, determ. with conditioned reflex technic)
(REFLEX, CONDITIONED,
determ. of neural lability)

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"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030002-1

GLEBOVSKIY, A.V.; FEDOROV, Vikt. K.

Method of comparative physiologic investigations of the higher nervous activity in animals. Zhur.vys.nerv.deiat. 4 no.4:581-585 Jl-Ag '54. (MLRA 8:3)

1. Institut fiziologii im. I.P.Pavlova Akademii nauk SSSR.
(CENTRAL NERVOUS SYSTEM, physiology,
higher nervous funct. tests in animals)

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"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030002-1

USSR/Medicine - Physiology FD-2710

Card 1/1 Pub. 33-19/28

Author : Glebovskiy, A. V.; Fedorov, Vikt. K.

Title : A method for the study of the higher nervous activity of animals

Periodical : Fiziol. zhur. 41, 104-108, Jan-Feb 1955

Abstract : Describes an electrodefensive method and apparatus for the study of conditioned reflex activity of animals such as mice, rats, guinea pigs, rabbits, cats, etc. Diagram; photograph; graphs.

Institution : Institute of Physiology imeni I. P. Pavlov of the Academy of Sciences USSR

Submitted : November 13, 1953

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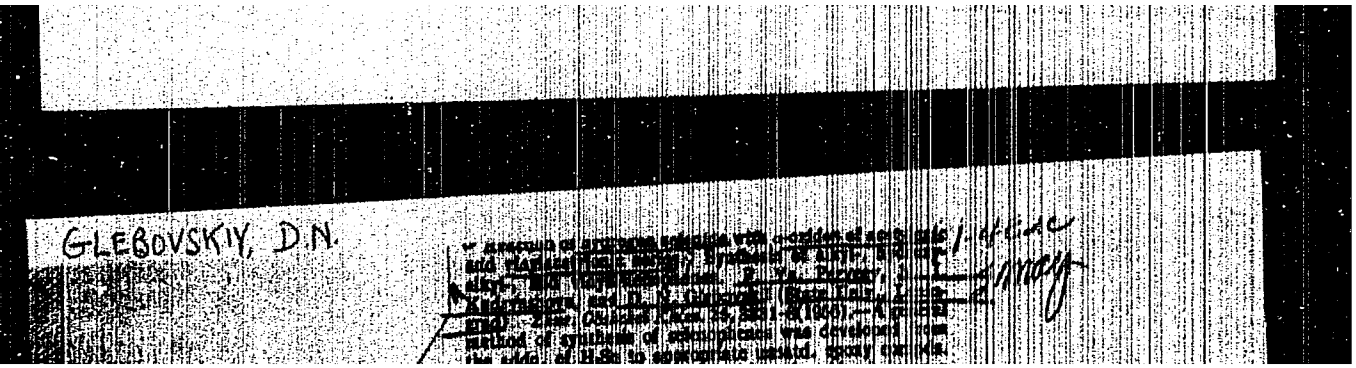

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"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030002-1

GULYAYEVA, L.I.; NAZAROVA, S.S.; KUZ'MINA, N.A.; GLEBOVSKIY, D.N.

On the composition and causes of the formation of polymers and acid condensates in the gas pipeline and apparatus of the oil-shale combine in Kohtla-Järve. Trudy VNIIPS no.7:174-197 '59. (MIRA 12:9)

(Kohtla-Järve--Oil shales) (Polymers)

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"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030002-1

ARVAN, Kh. L.; GLEBOVSKIY, D. [illegible]

Photochemical reactions in pyridine solutions of [illegible] dyes. Zhur.fiz.khim. 35 no. [illegible] '61. [illegible]

(Thiazine) (Dyes and dyeing--Spectra) (Photochemistry)

APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030002-1"

"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030002-1

IOFFE, I.S.; GLEBOVSKIY, D.N., BARNAJLOV, O.D.

Sulfonation and nitration of 2 [illegible] hydroxyphenyl)-benzimidazole.
Zhur.ob.khim. [illegible] no. [illegible] '59. [illegible] (MIRA 15:7)
(Benzimidazole) (Sulfonation) (Nitration)

APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030002-1"

"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030002-1

S/051/62/012/006/006/020
E075/E436

AUTHORS: Kholmogorov, V.Ye., Glebovskiy, D.N.

TITLE: On the electron paramagnetic resonance spectra of organic dyestuffs

PERIODICAL: Optika i spektroskopiya, v.12, no.6, 1962, 728-732

TEXT: Phthalocyanine, triarylmethane, azo and cyanine dyes were examined by electron paramagnetic resonance (EPR) in connection with the study of semiconductor and photoelectric properties of dyestuffs. The EPR spectrograph worked on the frequency of 9600 Mc/s and was fitted with a cylindrical resonator H_{01} and wire bolometer as a detecting element. All the measurements were carried out in air at 20°C, and under vacuum (10^{-4} Hg) at 20°C and 75 to 100°C. The measurements on metal free phthalocyanide and phthalocyanide of Fe^{3+}, Co^{2+}, Cu^{2+}, Ni^{2+}, $2Na^{+}$, $2K^{+}$, Ag^{2+}, Be^{2+}, Mg^{2+}, Zn^{2+}, Cd^{2+}, Al^{3+}, Sn^{2+}, Pt^{2+}, Ce^{3+}. The phthalocyanides with a paramagnetic metal in the centre of the molecule gave wide EPR lines. Narrow EPR lines (ΔH = 4 to 10 gs, g = 2.003) were found in the phthalocyanides of diamagnetic metals. The narrow lines were due to impurities containing

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unpaired electrons. Examination of crystal violet (Applied Chemical and Dye Corpn), acid blue O (Agfa), basic brilliant green (Agfa), malachite green (Agfa), fuchsine (Hoechst), aurine (Agfa), auramine (Hoechst), rodamine B and G (Agfa) did not reveal any narrow lines. Phenosafranine did not give the narrow line characteristic of delocalized unpaired π-electrons. Such a line was found for nigrosine but its intensity varied for different samples and was probably due to impurities. Unstable cyanine dyes gave narrow EPR lines, which were due to decomposition products with unpaired electrons. Stable cyanine dyes did not give the narrow lines. There are 2 tables.

SUBMITTED: May 8, 1961

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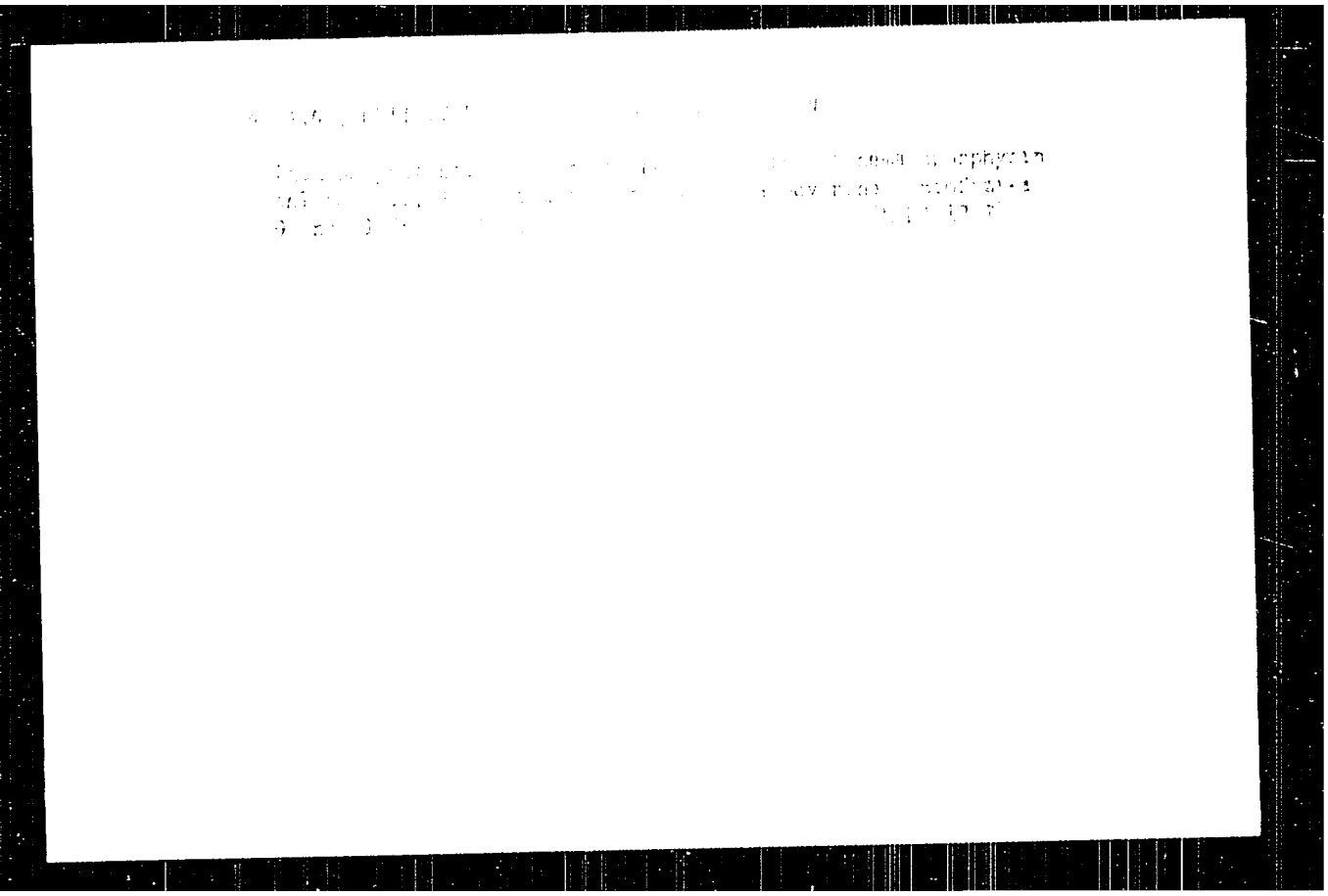

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GLEBOVSKIY, G.; AKIMOV, P.

On the paths of technical progress. Sov.profsoiuzy 4 no.4: 57-61 Ap '56. (MLRA 9:7)

1.Direktor Ural'skogo zavoda tyazhelogo mashinostroyaniya imeni Sergo Ordzhonikidze (for Glebovskiy).2.Predsedatel' zavodskogo komiteta profsoyuza (for Akimov)
(Machinery industry)

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GLEBOVSKIY, S.S.; LEBEDEV, B.A.

Use of minor elements in breaking down a monotone cross section of sedimentary-metamorphic rocks. Vop. razved. geofiz. no.3: 187-191 '64. (MIRA 18:2)

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"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030002-1

GLEBOVSKIY, V.D.

EXCERPTA MEDICA Sec.2 Vol.10/3 Physiology March 57

1293. GLEBOVSKII V.D. Chair of Normal Physiol., Pediat. Med. Inst., Leningrad. *Condition of formation of crossed extensor reflexes (Philippson reflex) in decerebrate animals (Russian text) FIZIOL. Z. 1956, 42/9 (788-799) Graphs 1 illus. 4

Most animals (cats) with decerebrate rigidity show a crossed extensor reflex (Philippson reflex) and no particularly strong stimulation is needed to produce it. The Philippson reflex may occur simultaneously with proprioceptive stretch reflexes of the m. quadriceps, but sometimes it may be associated with simultaneous inhibition of the proprioceptive reflex. Simonson - Minneapolis, Minn.

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"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030002-1

GLEBOVSKIY, V.D.

Reciprocal innervation and rigidity following decerebration in early postnatal ontogenesis. Biul.eksp.biol. i med. 42 no.11:6-11 N '56. (MLRA 10:1)

1. Iz kafedry normal'noy fiziologii (zav. - prof. D.G.Kvasov) Pediatricheskogo meditsinskogo instituta (dir. - prof. N.T.Shutova), Leningrad. Predstavleno deystvitel'nym chlenom AMN SSSR A.F.Turom.

(BRAIN, physiology,
flexor & extensor reflexes in decerebrate rigidity in newborn rats (Rus))
(REFLEX,
flexor & extensor in decerebrate rigidity in newborn cats (Rus))

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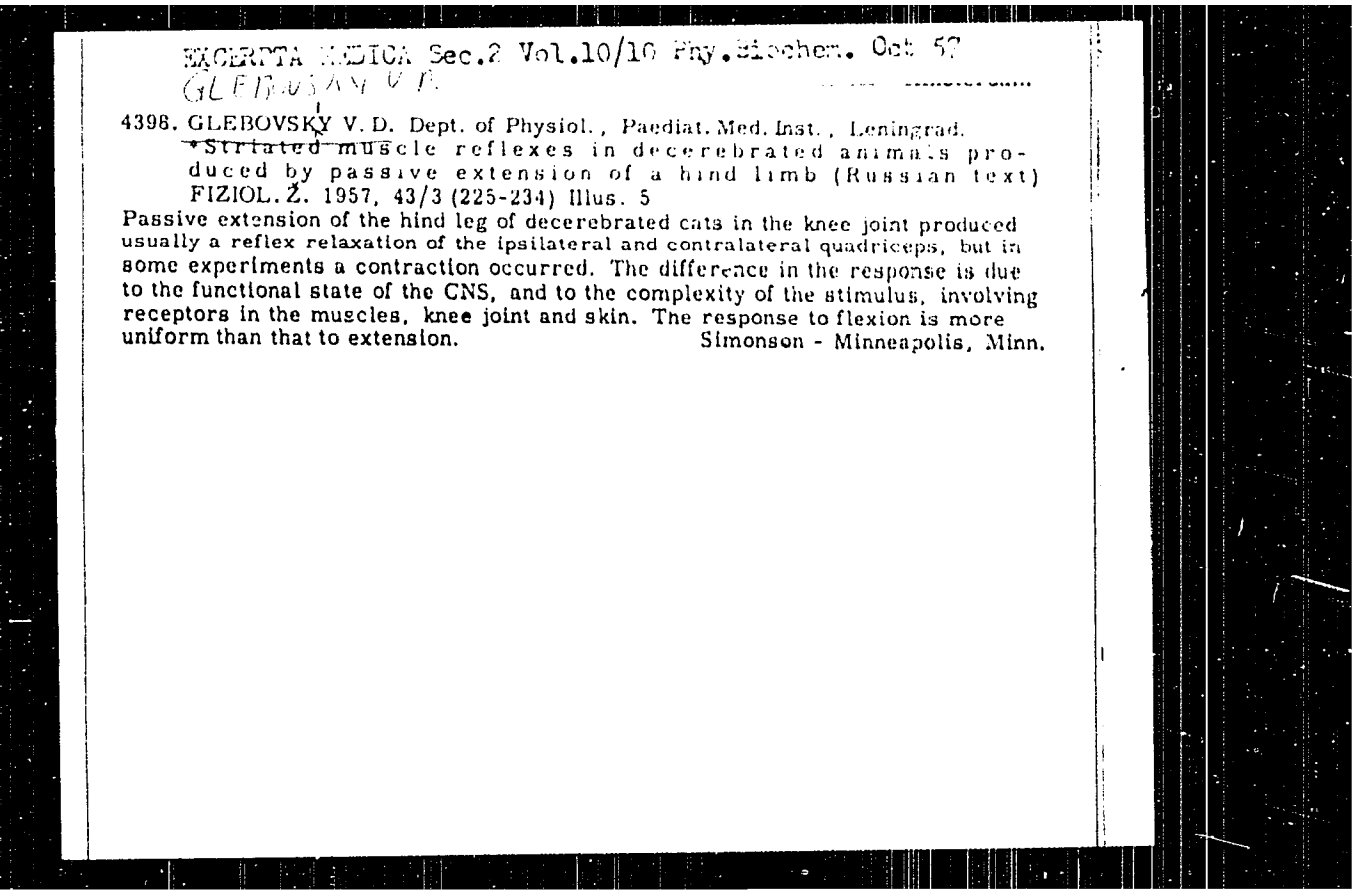

EXCERPTA MEDICA Sec.2 Vol.10/10 Phy.Biochem. Oct 57

GLEBOVSKY V.D.

4398. GLEBOVSKY V. D. Dept. of Physiol., Paediat. Med. Inst., Leningrad.
~~Striated muscle~~ reflexes in decerebrated animals produced by passive extension of a hind limb (Russian text)
FIZIOL. Z. 1957, 43/3 (225-234) Illus. 5

Passive extension of the hind leg of decerebrated cats in the knee joint produced usually a reflex relaxation of the ipsilateral and contralateral quadriceps, but in some experiments a contraction occurred. The difference in the response is due to the functional state of the CNS, and to the complexity of the stimulus, involving receptors in the muscles, knee joint and skin. The response to flexion is more uniform than that to extension. Simonson - Minneapolis, Minn.

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"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030002-1

USSR/Human and Animal Physiology - The Nervous System. T

Abs Jour : Ref Zhur Biol., No 3, 1959, 13155

Author : Glebovskiy, V.D.
Inst :
Title : Influence of Passive Motions on Reflex Contractions of Muscles of Contralateral Extremity

Orig Pub : Fiziol. zh. SSSR, 1957, 43, No 10, 974-982

Abstract : In decerebrated cats passive flexion of the posterior leg at the knee joint usually inhibited contraction of the semitendinosus of the other leg with irritation of the cutaneous nerve; sometimes contraction, on the other hand, was reinforced. Passive extension of the leg at the knee joint more often strengthened the contraction of the semitendinosus and rarely inhibited it. The direction of the reflex reaction depended on the functional state of the nerve centers, particularly on the force and

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T-10

USSR / Human and Animal Physiology. Nervous System.

Abs Jour : Ref Zhur - Biologiya, No 1, 1959, No. 3816

Author : Globovskiy, V. D.
Inst : ~~Not given~~
Title : Variability of the Crossed Reflex in Response to Extension (Philippson's Reflex)

Orig Pub : Byul. eksperim. biol. i med., 1957, 44, No 8, 3-7

Abstract : Studies were made in decerebrated cats to determine under what conditions an inversion of the crossed reflex contraction of the quadriceps femoris muscle occurs in response to stretching of the homonymous contralateral muscle by passive flexion of the extremity in the knee joint (Philippson's reflex). Inhibition of the quadratus femoris contraction (i.e., inversion of Philippson's reflex) occurred when a low and unstable decerebrate rigidity was joined by a weak passive flexion of the

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